# **BookletChart**<sup>TM</sup>

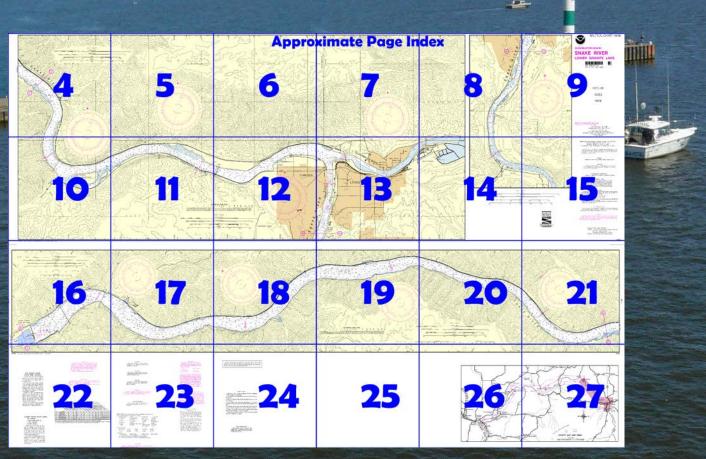
# Snake River – Lower Granite Lake NOAA Chart 18548



A reduced-scale NOAA nautical chart for small boaters When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



# Published by the **National Oceanic and Atmospheric Administration** National Ocean Service Office of Coast Survey

www.NauticalCharts.NOAA.gov 888-990-NOAA

## What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

## What is a BookletChart<sup>™</sup>?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience. but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

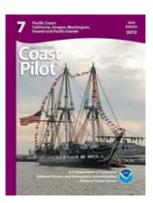
Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

## **Notice to Mariners Correction Status**

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=185 48.



(Selected Excerpts from Coast Pilot) Snake River, 283 (325.2) miles above the mouth of Columbia River, rises in Yellowstone National Park, from which it winds S past the Grand Tetons, and thence for some 868 miles to its junction with the Columbia at Pasco, WA. From that junction for 119 (137) miles to Lewiston, ID there are few small-craft facilities. (See small-craft facilities tabulation on charts 18545, 18546, 18547, and 18548 for supplies and services available.) There are several

marinas along the river at Clarkston, WA and Lewiston, ID where berths, gasoline, diesel fuel, water, ice, and marine supplies may be obtained.

The Ports of Clarkston and Lewiston at the confluence of the Snake and Clarkford Rivers are the primary ports along the Snake River and serve the inland communities of Washington, Idaho, and Oregon. Barge loading facilities and grain terminals are available at both ports. Near its mouth, at the village of **Burbank**, Snake River is crossed by the Burlington Northern Railroad lift bridge with a clearance of 14 feet down and 60 feet up. The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign KQ-9047. About 0.6 (0.7) mile above the railroad bridge, there are dual spans of a fixed highway bridge with a least clearance of 61 feet. Numerous overhead cables with a reported minimum clearance of 43 feet cross Snake River between the fixed highway bridge and Ice Harbor Lock and Dam.

East Pasco, on the N side of Snake River 1 mile above the mouth, has privately owned facilities for receipt and shipment of petroleum products and liquid fertilizer. Burbank, on the S side of the river has two grain facilities owned by the Port of Walla Walla and operated by private companies. From East Pasco to Lewiston there are several facilities used for shipment of grain and wood chips. Other facilities along the river specialize in the receipt and shipment of logs, general cargo, petroleum products, anhydrous ammonia, and liquid fertilizer.

Ice Harbor Lock and Dam, 8.4 (9.7) miles above the mouth of the Snake River, has a single lift lock with a vertical lift of about 100 feet. A restricted area is above and below the dam; the area is marked by buoys above the dam. (See 207.718, chapter 2, for information concerning use, administration, and navigation of Ice Harbor Lock and Dam.) Lake Sacajawea, the lake formed by the waters behind Ice Harbor Dam, provides depths at slack water of 10 feet or more for a distance of 27.8 (32) miles to Lower Monumental Dam.

Lower Monumental Lock and Dam, 27.6 (31.8) miles above Ice Harbor Dam and about 36 (41.5) miles above the mouth of the Snake River, has a single lift lock with a vertical lift of about 100 feet. A restricted area is above and below the dam; the area is marked by buoys above the dam. (See 207.718, chapter 2, for information concerning use, administration, and navigation of Lower Monumental Lock and Dam.)

The Snake River between Lower Monumental Dam and Little Goose Dam, 25 (28.8) miles above Lower Monumental Dam, is crossed by three fixed bridges with a least clearance of 52 feet; overhead power cables crossing the river between the two dams have a clearance of 90 feet. Little Goose Lock and Dam, about 25 (28.8) miles above Lower Monumental Dam and about 61.1 (70.3) miles above the mouth of the Snake River, has a single lift lock with a vertical lift of about 98 feet. A restricted area is above and below the dam; the area is marked by buoys above the dam. (See 207.718, chptr 2, for information concerning use, administration, and navigation of Little Goose Lock and Dam.) Lake Bryan, the pool formed by Little Goose Dam is crossed by a fixed highway bridge with a clearance of 60 feet about 10.7 (12.3) miles above the dam; overhead power cables with a least clearance of 75 feet cross the lake between Little Goose Dam and Lower Granite Dam.

Lower Granite Lock and Dam, about 31.5 (36.8) miles above Little Goose Dam and about 93.4 (107.5) miles above the mouth of the Snake River, has a single lift navigation lock 675 feet long and 86 feet wide. The dam, completed in 1975, permits navigation to Lewiston, Idaho, 120 (138) miles above the mouth of the Snake River. A restricted area is above and below the dam; the area is marked by buoys above the dam. (See 207.718, chapter 2, for information concerning use, administration, and navigation of Lower Granite Lock and Dam.)

> **U.S. Coast Guard Rescue Coordination Center** 24 hour Regional Contact for Emergencies

**RCC Seattle** Commander

13<sup>th</sup> CG District Seattle, WA

(206) 220-7001



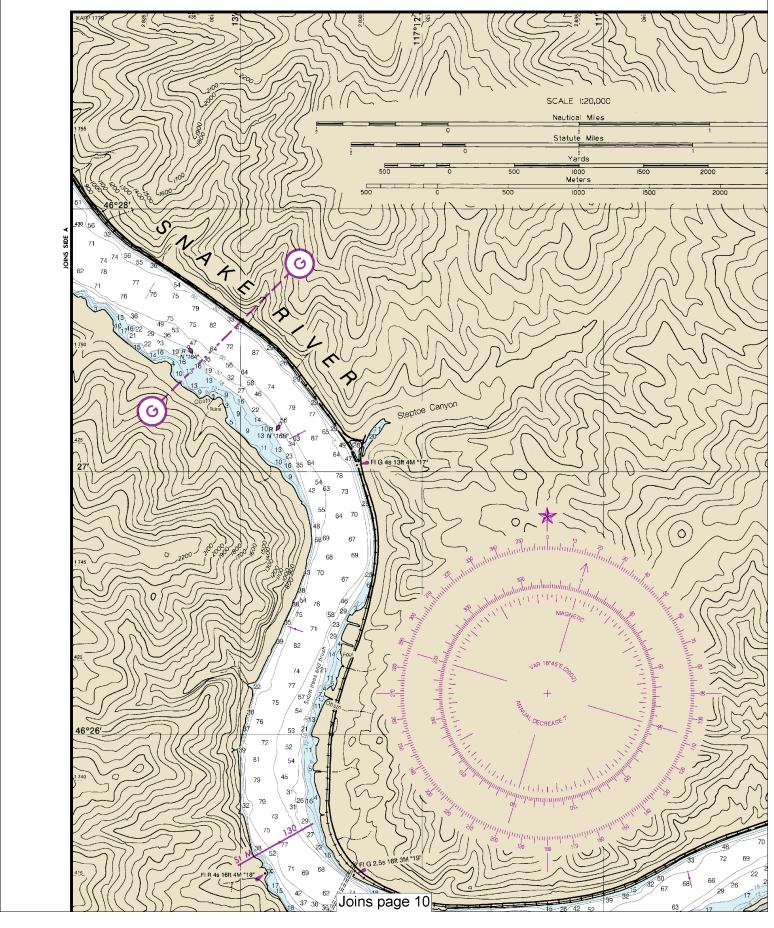
NOAA's navigation managers serve as ambassadors to the maritime community.

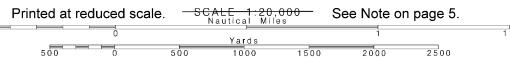
They help identify navigational challenges facing professional and recreational mariners, and provide NOAA resources and information for safe navigation. For additional information, please visit nauticalcharts.noaa.gov/service/navmanagers

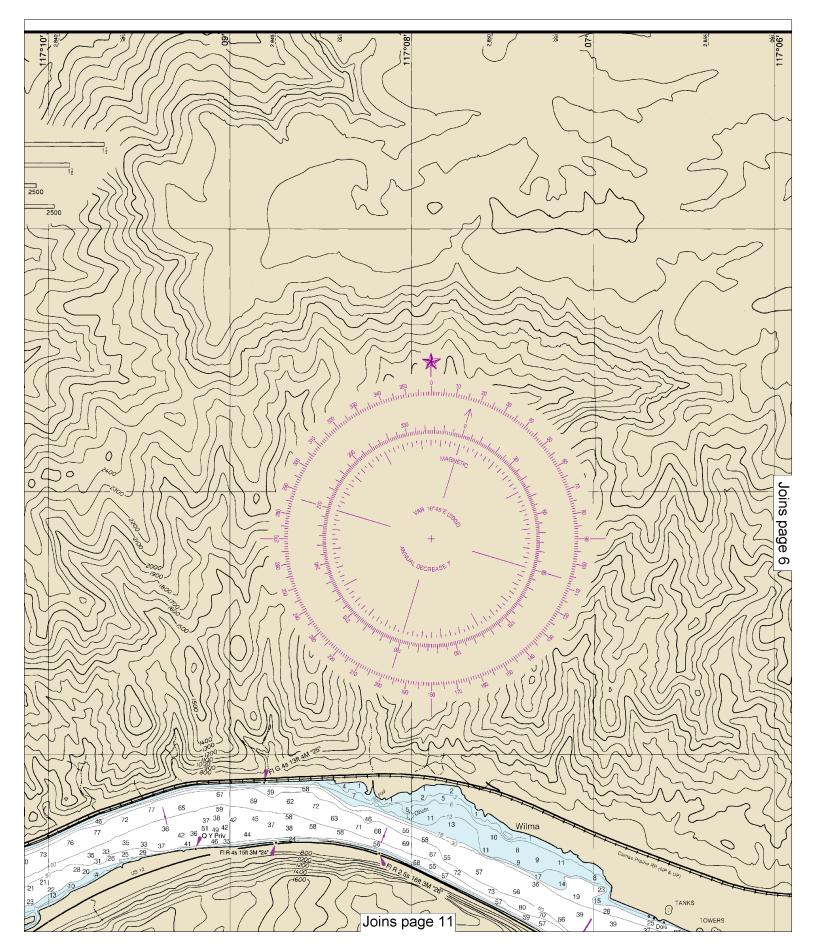
To make suggestions or ask questions online, go to *nauticalcharts.noaa.gov/inquiry*. To report a chart discrepancy, please use *ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx*.

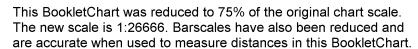
# Lateral System As Seen Entering From Seaward on navigable waters except Western Rivers



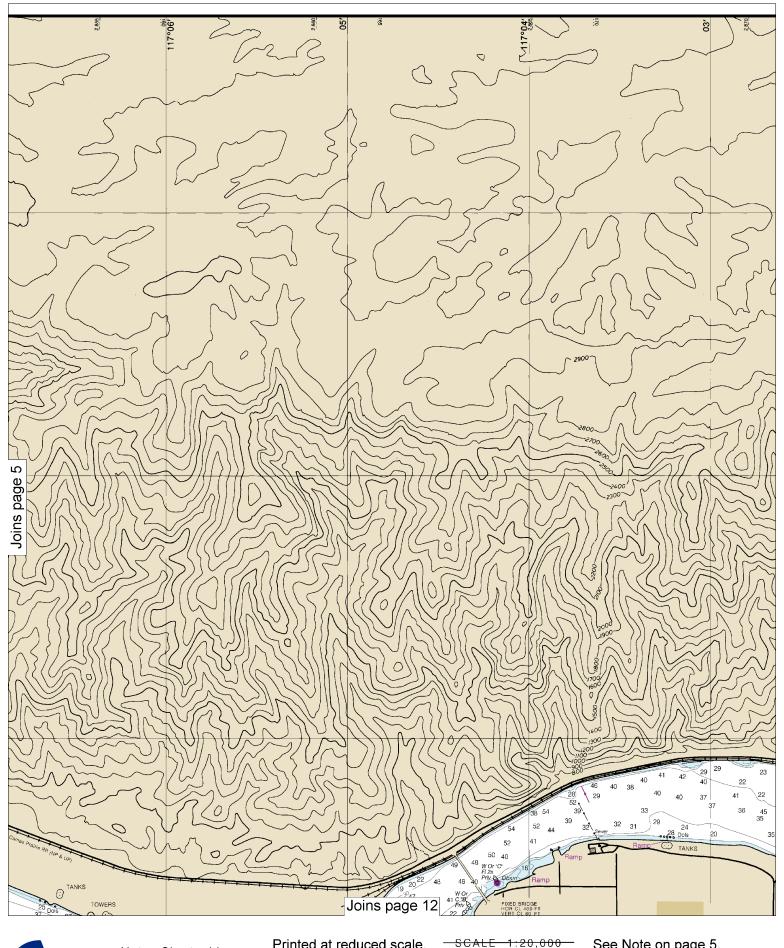


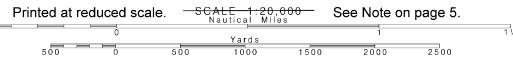


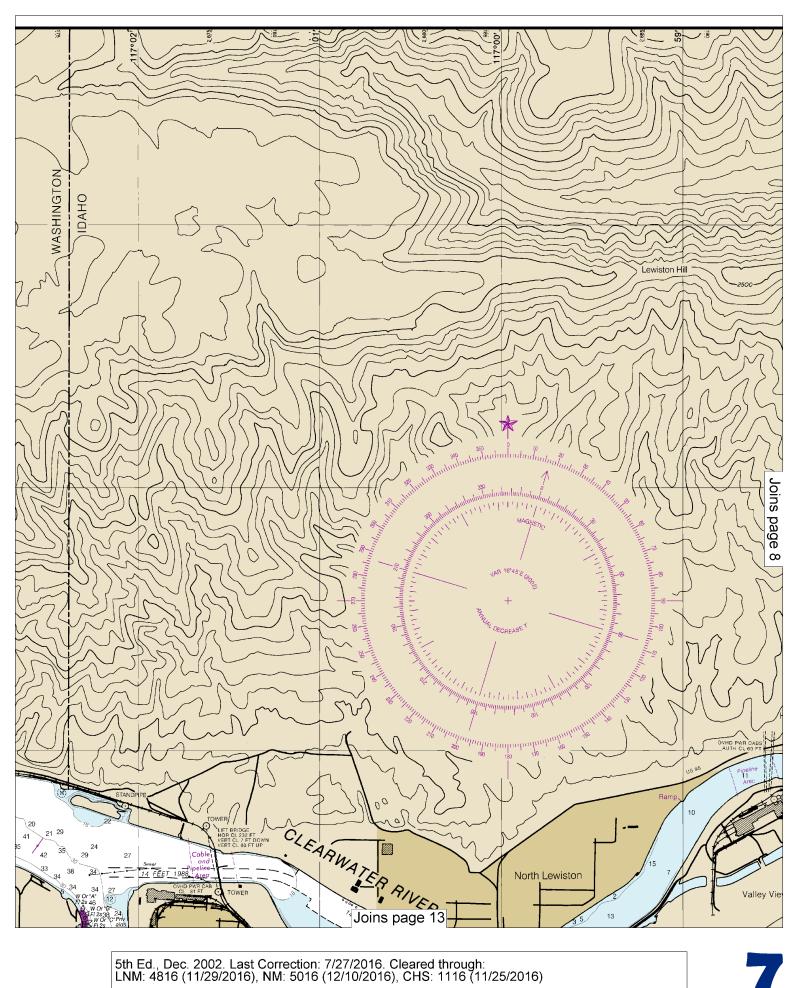


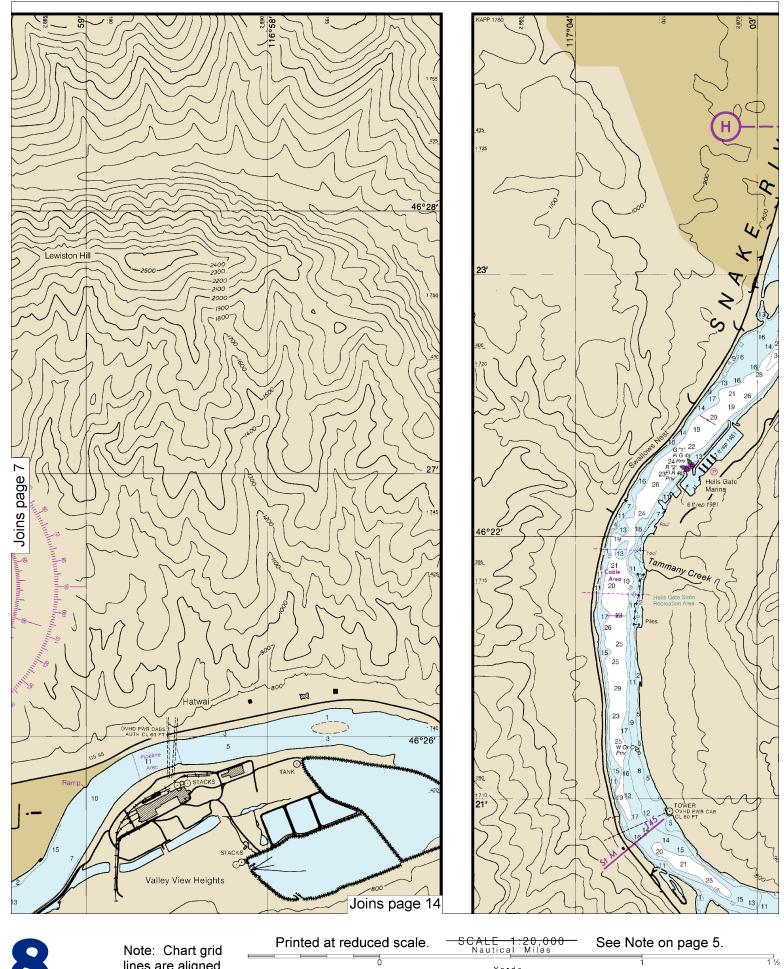


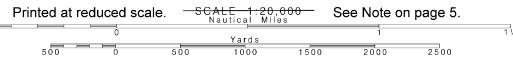


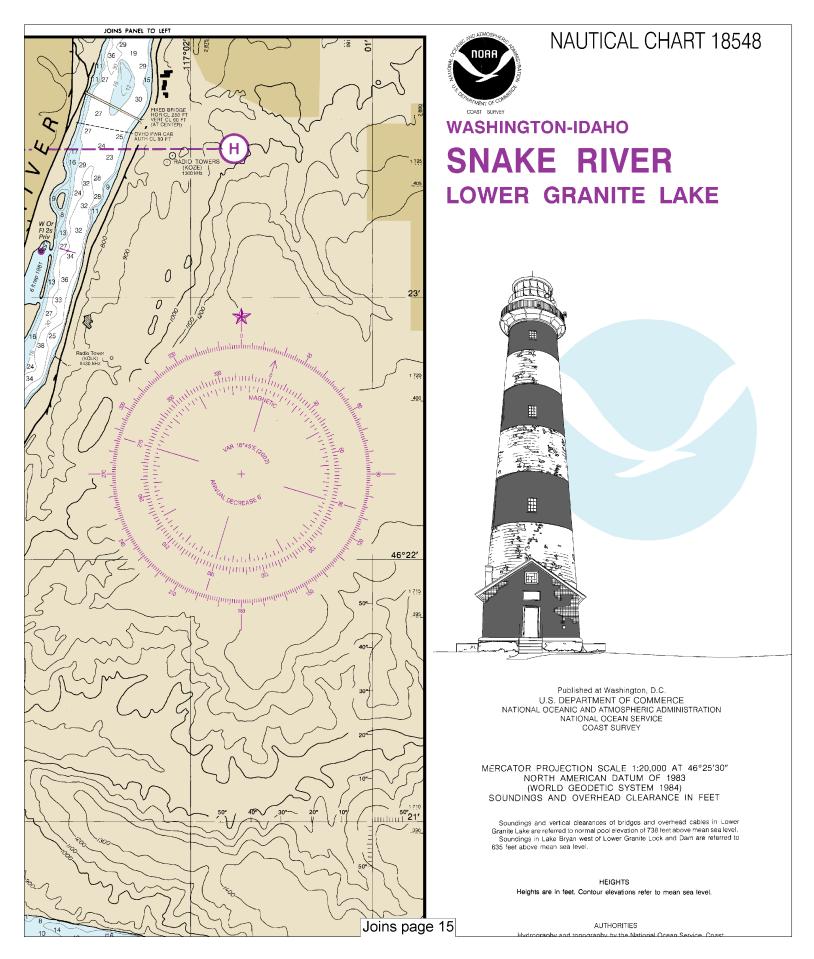




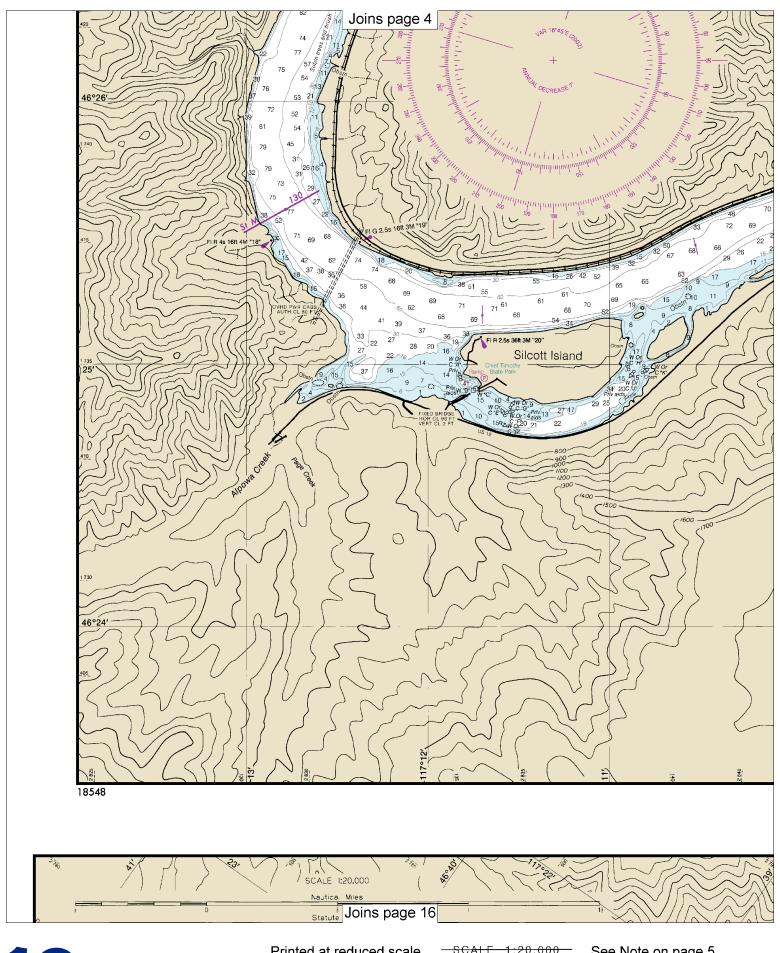


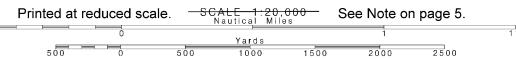


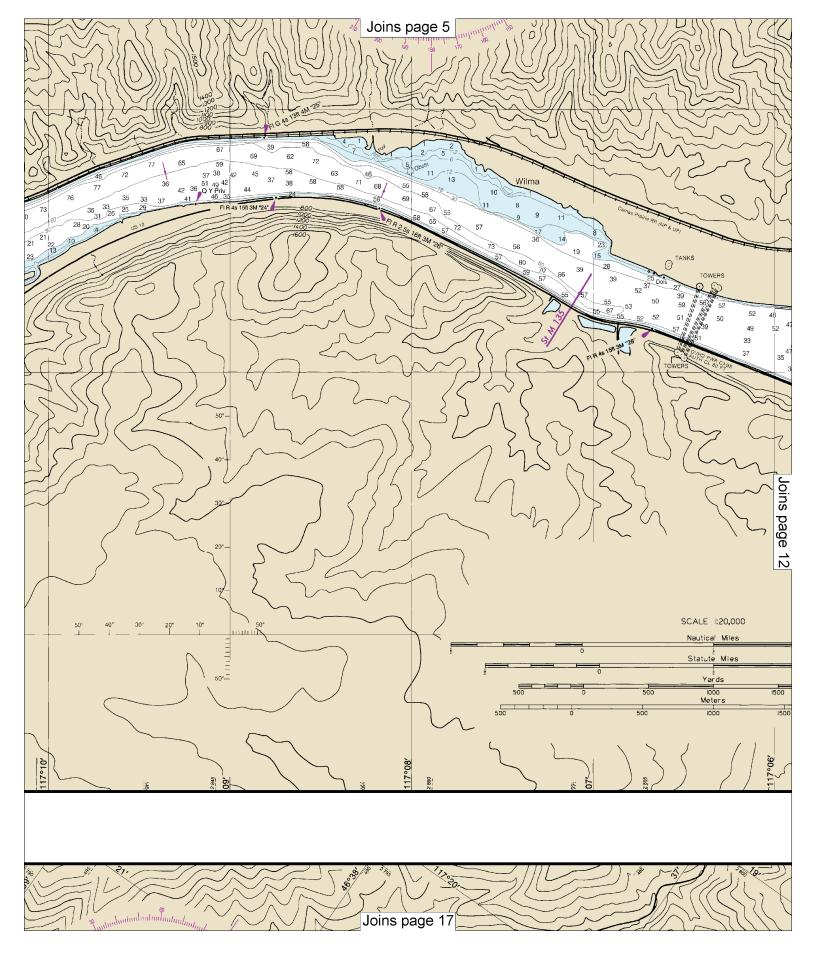


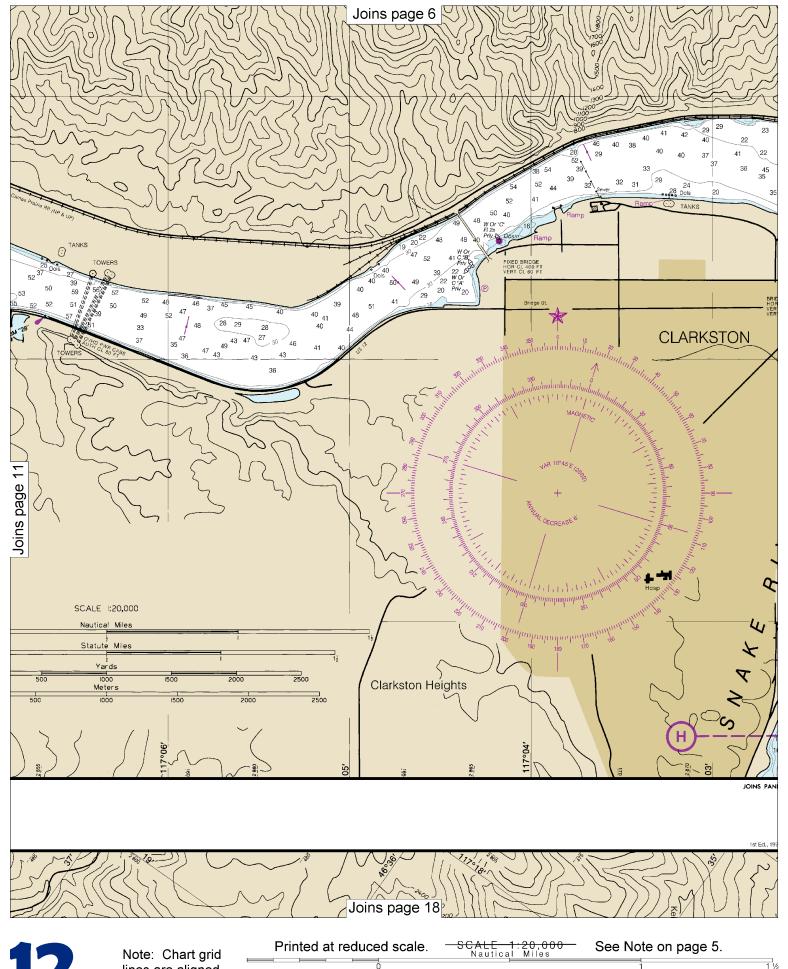


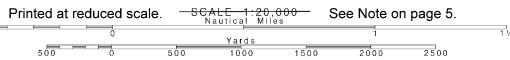


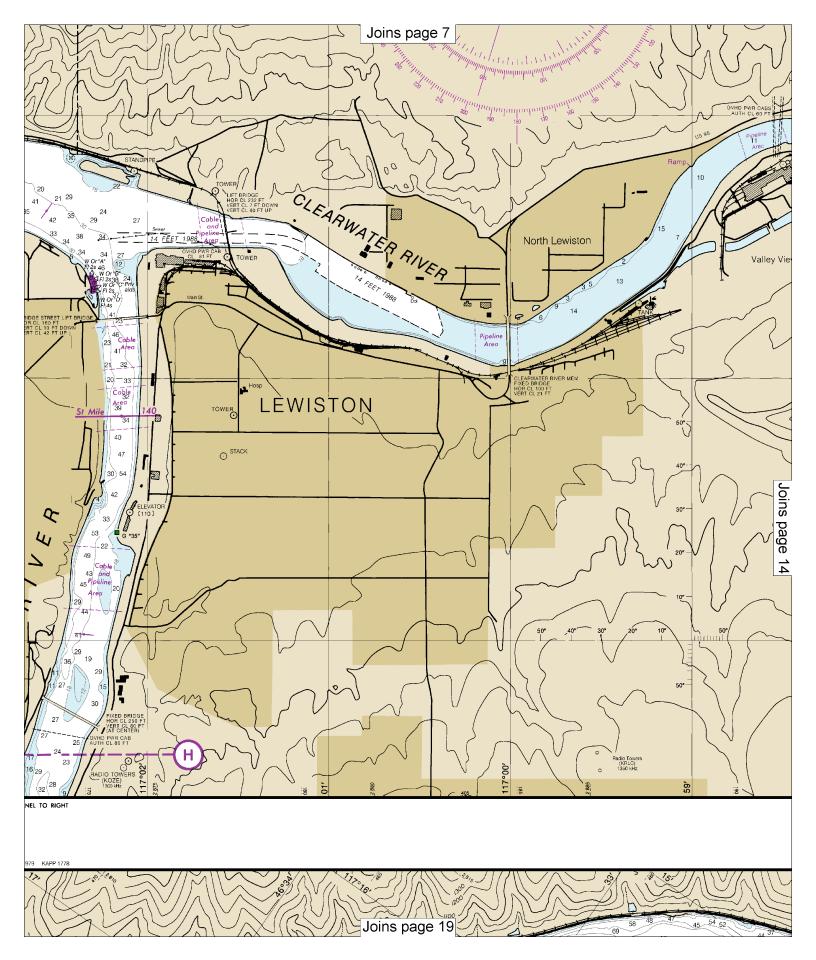


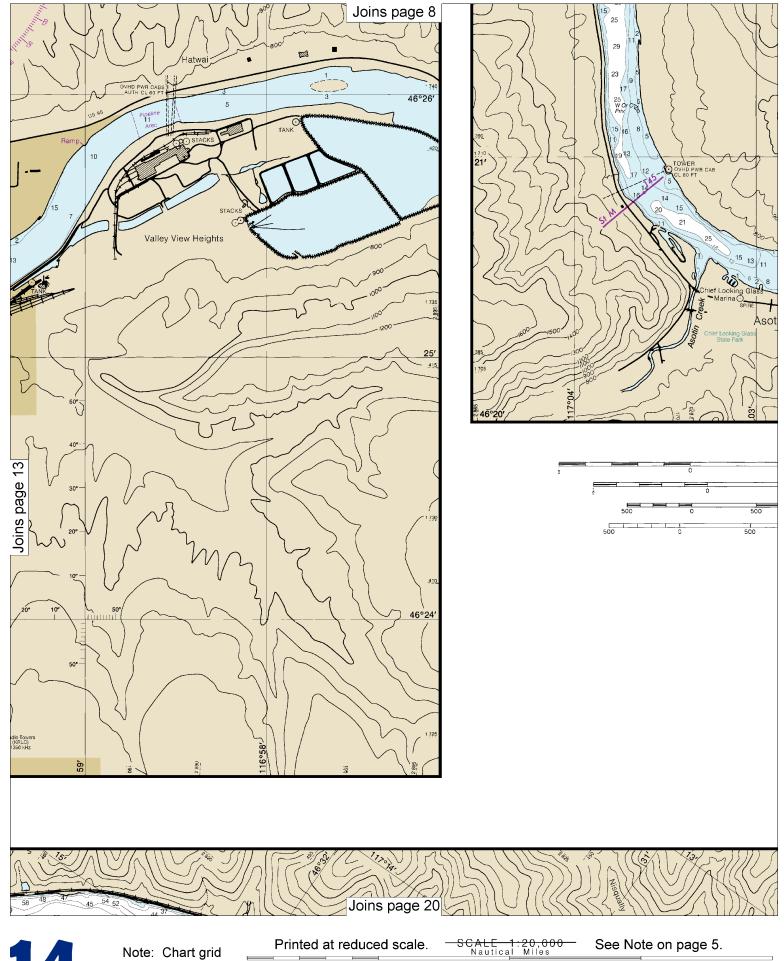




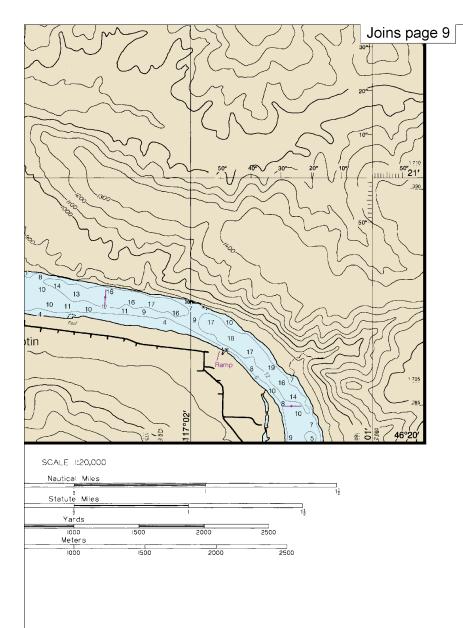












Published at Washington, D.C. U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION NATIONAL OCEAN SERVICE COAST SURVEY

MERCATOR PROJECTION SCALE 1:20,000 AT 46°25'30" NORTH AMERICAN DATUM OF 1983 (WORLD GEODETIC SYSTEM 1984) SOUNDINGS AND OVERHEAD CLEARANCE IN FEET

Soundings and vertical clearances of bridges and overhead cables in Lower Granite Lake are referred to normal pool elevation of 738 feet above mean sea level. Soundings in Lake Bryan west of Lower Granite Lock and Dam are referred to 635 feet above mean sea level.

#### HEIGHTS

Heights are in feet. Contour elevations refer to mean sea level.

#### AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

#### SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 7 for important supplemental information.

#### HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83) and for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of .422" southward and 3.58" westward to agree with this chart.

#### CAUTION

The depths of water on this chart have been determined from conditions existing prior to the filling of the pool. Shoaler depths than charted may exist within the blue tinted areas particularly near the shoreline.

#### PLANE COORDINATE GRID

(based on NAD 1927)

Washington State Grid, south zone, is indicated by dashed ticks at 5,000 foot intervals. The last three digits are omitted. Idaho State Grid, west zone, is indicated by dotted ticks at 5,000 foot intervals. The last three digits are omitted.

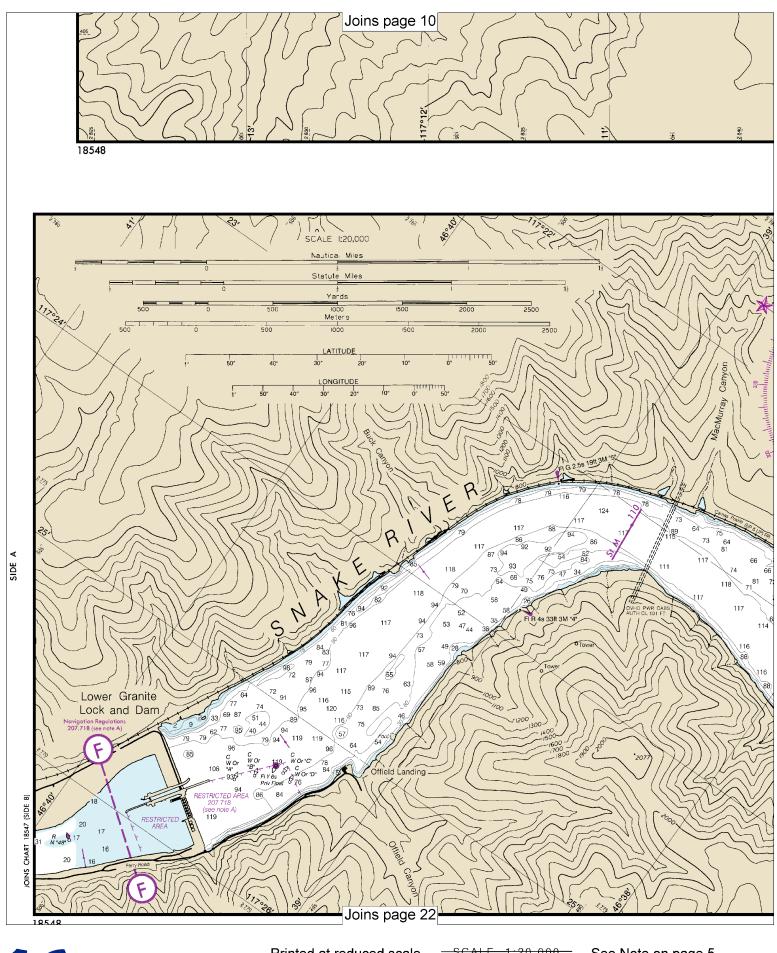
## POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

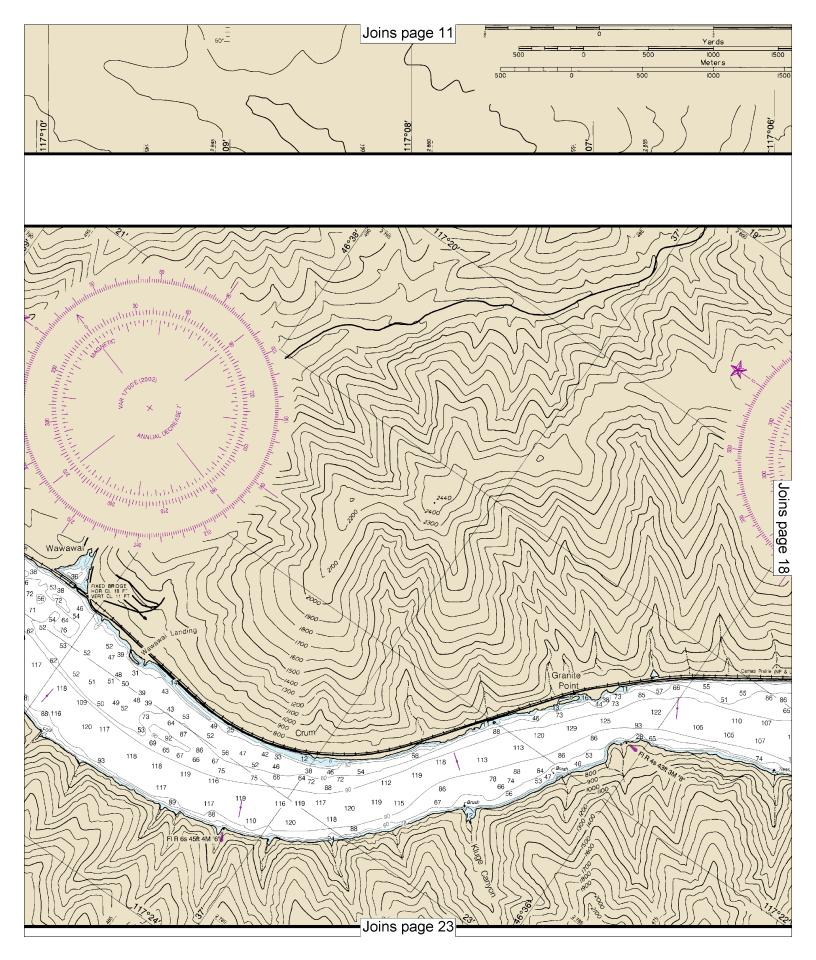
# CAUTION

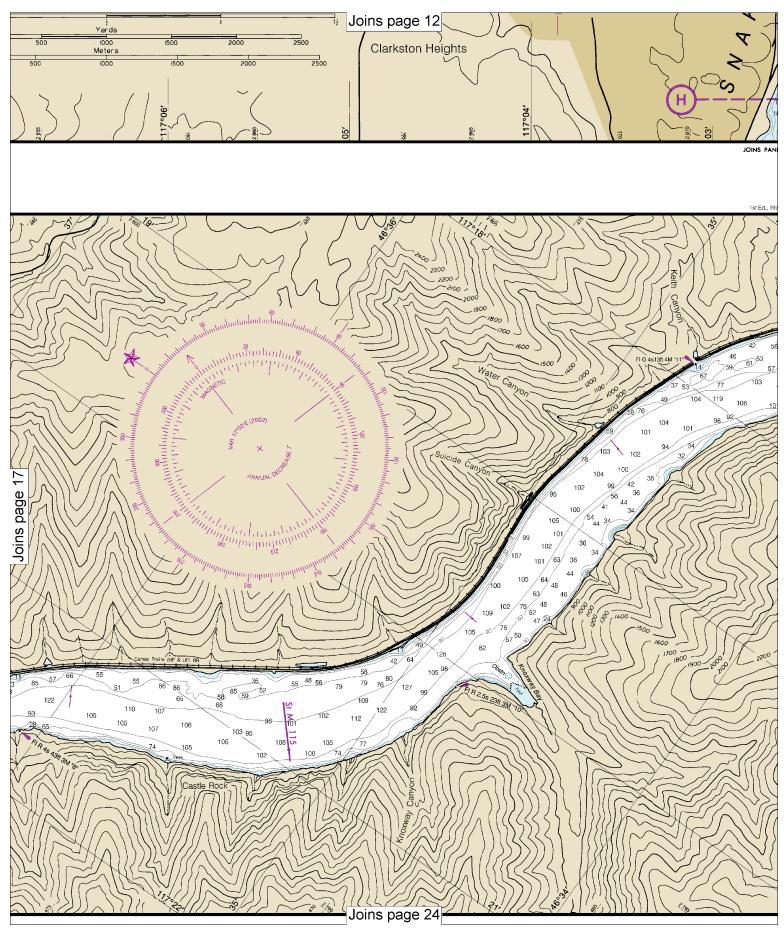
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Imagery and Mapping Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner.



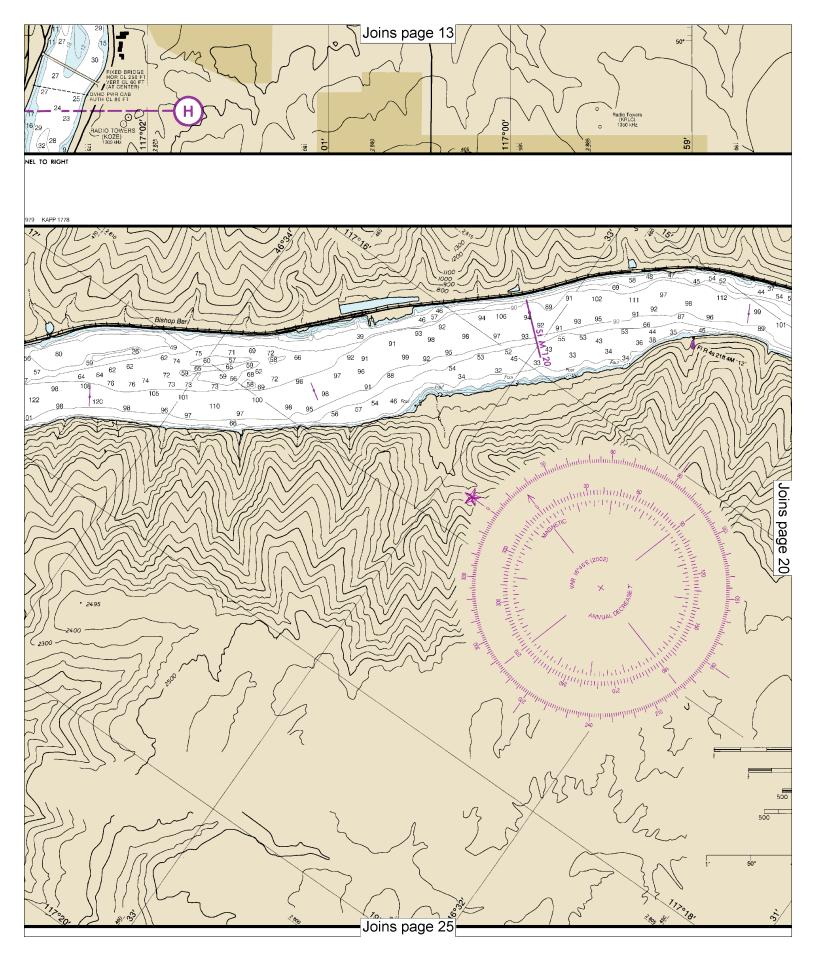


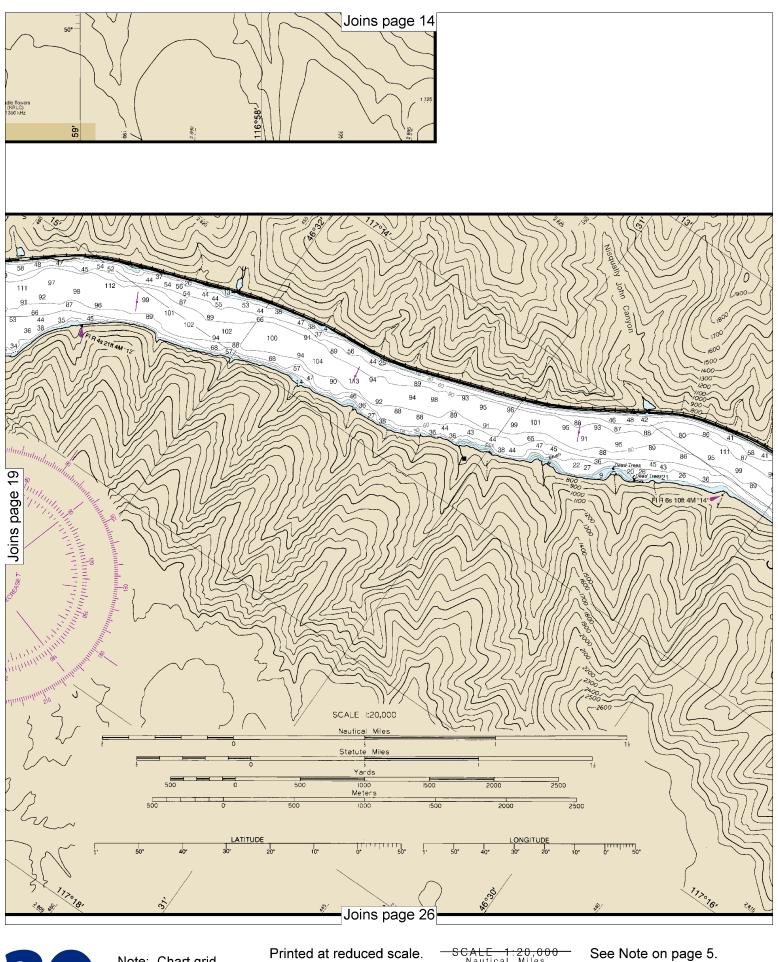




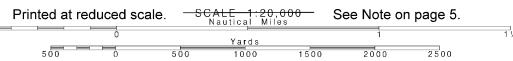


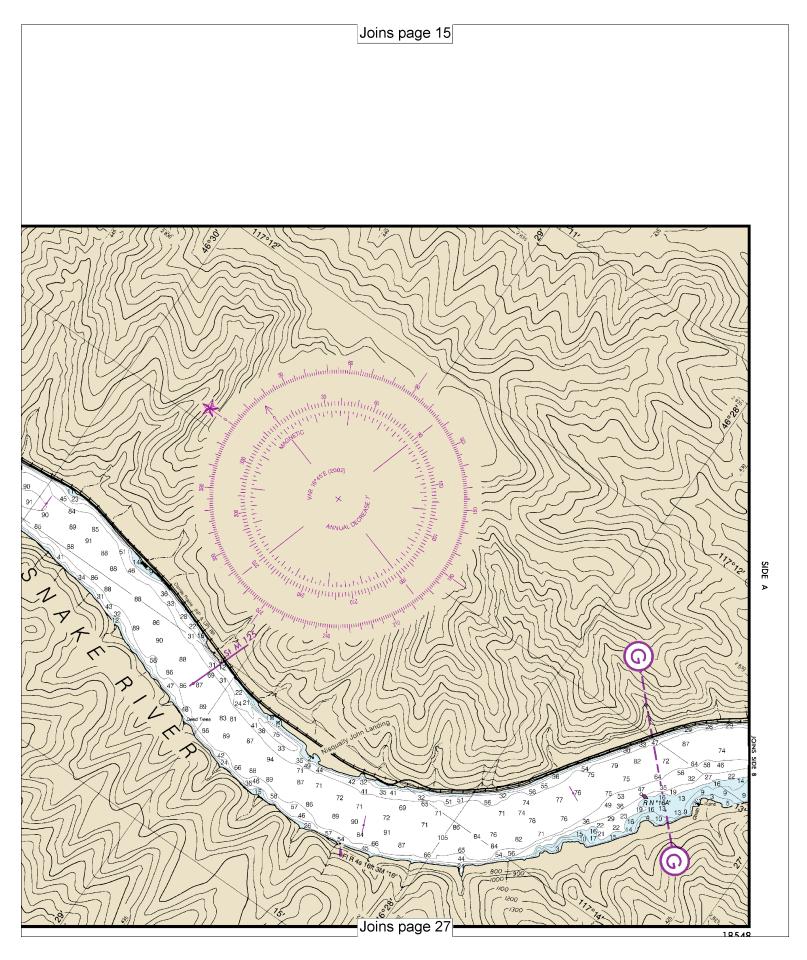


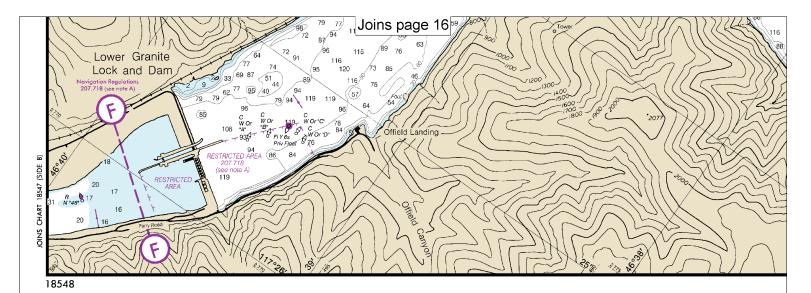












#### THE SNAKE RIVER FACTS AND HISTORY

The Snake River, one of the most important streams in the Pacific northwest section of the United States, is the largest tributary of the Columbia River.

The river rises in high, rugged mountains of the continental divide near the southwest corner of Yellowstone National Park in Wyoming and joins the Columbia near Pasco, Washington after flowing 1,038 miles. The river descends from elevations of 10,000 feet to an elevation of 300 feet.

Discovered in 1805 by the Lewis and Clark expedition, the Snake River with its many turbulent rapids presented one of the most difficult rivers for the Expedition to negotiate. Canoes were damaged by rocks, supplies became saturated and some supplies were lost when a canoe capsized.

Today, near Pasco-Kennewick, Sacajawea State Park and museum is dedicated to the Indian woman who guided the explorers.

#### LOWER SNAKE RIVER DAMS

ICE HARBOR LOWER MONUMENTAL LITTLE GOOSE LOWER GRANITE

These four Snake River Dams were authorized by Congress to serve the Pacific Northwest as "Multipurpose" projects, providing electric power, slack-water transportation to the Pacific Ocean Ports, and to retain passage for anadromous fish to and from their habitual spawning waters inland.

Many parks and recreation areas are also planned by the Corps of Engineers for the enjoyment of the entire family. Northwest residents and their guests will have ready access to swimming, boating, fishing, skiing and picnicking.

#### NOTE A

Navigation regulations are published in Chapter 2, U.S. ast Pilot 7. Additions or revisions to Chapter 2 are pub-Coast Pilot 7. Additions or revisions to Chapter 2 are pub-lished in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 13th Coast Guard District in Seattle, Washington or at the Office of the District Engineer, Corps of Engineers in Seattle, Washington

Refer to charted regulation section numbers

#### SNAKE RIVER

Mileage distances along the Snake River are in Statute Miles. Distances along the Snake River are from the junction of the Columbia River and are indicated thus:

Tables for converting Statute Miles to International Nautical miles are given in Coast Pilot 7.

#### SAFETY HINTS

- 1. Keep your chart up to date by applying all Notices to Mariners corrections when you receive them.
- 2. Read carefully all notes printed on your chart, each is vital to your safety afloat.
- 3. Learn the meaning of each symbol and abbreviation on your chart from Chart No. 1.
- 4. The compass on your chart shows the variation from true north, however you must also correct your bearing for the deviation of your
- 5. Constantly use your chart from the beginning to end of each trip Keep in mind the orientation of your boat with respect to the chart. 6. Maintain your position on the chart by relating charted features
- with those you can identify in your surroundings. 7. Storm warning display locations and small craft warning signals have been charted for your safetly.

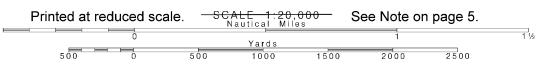
#### RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

ABBRI

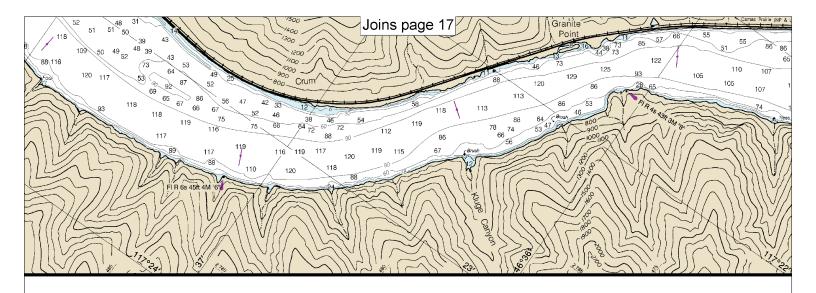
Aids t

5th Ed., Dec. 2002. Last Correction: 7/27/2016. Cleared through: LNM: 4816 (11/29/2016), NM: 5016 (12/10/2016), CHS: 1116 (11/25/2016)



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about this ch



#### CALITION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

#### CAUTION

Small craft should stay clear of large commercial and government vessels even if small craft have the right-of-way.

#### CAUTION

All craft should avoid areas where the skin divers flag, a red square with a diagonal white stripe, is displayed.

#### WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

# Pump out facilities

#### AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

PA position approximate

Wreck, rock, obstruction, or shoal swept clear to the depth indicated.

Rocks that cover and uncover, with heights in feet above datum of soundings.

ED existence doubtful

REVIATIONS (For	complete list of	Symbols and Abl	breviations, see Chart	No. 1.)	
to Navigation (lights	are white unless	otherwise indicated):			
AERO aeronautical	G green		Mo morse code	R TR radio tower	
Al alternating	IQ intern	upted quick	N nun	Rot rotating	
B black	iso isophase		OBSC obscured	s seconds	
Bn beacon	LT HO lighthouse		Oc occulting	SEC sector	
C can	M nautic	al mile	Or prange	St M statute miles	
DIA diaphone	m minut	es	Q quick	VQ very quick	
F fixed	MICRO TR microwave tower		R red	W white	
FI fashing	Mkr marker		Ra Ref radar reflector	WHIS whistle	
			R Bn radiobeacon	Y yellow	
om characteristics:					
Blds boulders	Co coral	gy gray	Oys oysters	so soft	
bk broken	G gravel	h hard	Rk rock	Sh shells sy sticky	
Cy clay	Grs grass	M mud	S sand		
cellaneous.					
AUTH authorized	Obstn obstruction		PD position doubtful	Subm submerged	

Rep reported

#### CAUTION

#### SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

\_\_\_\_ Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging or trawling.

Covered wells may be marked by lighted or

Covered wells may be marked by lighted or

#### CAUTION

# WARNINGS CONCERNING LARGE VESSELS

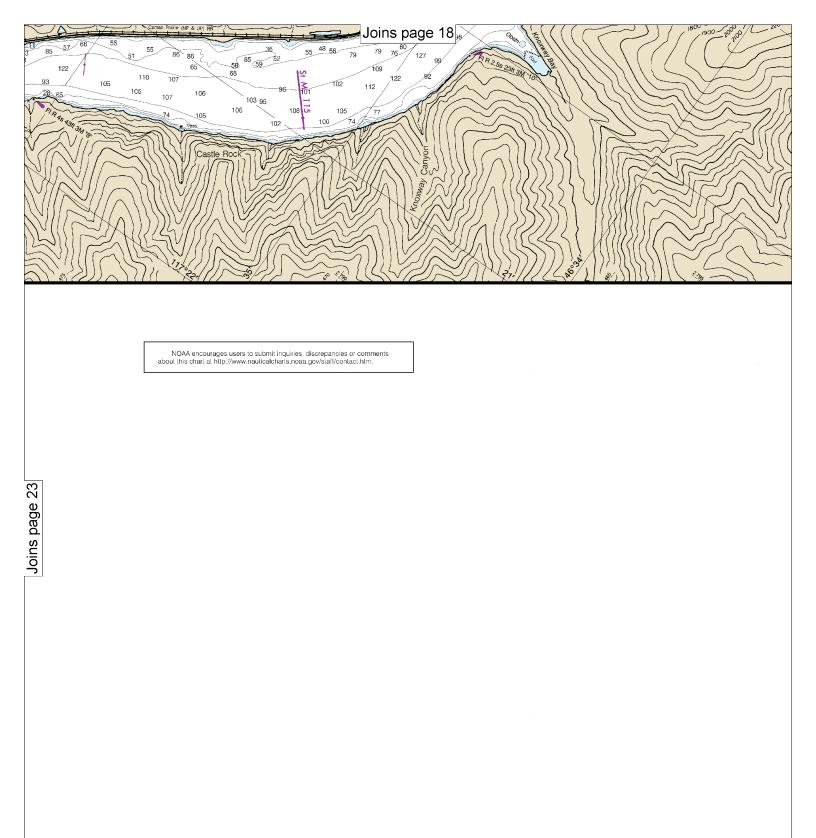
The "Rules of the Road" state that recreational boats shall not impede the passage of a vessel that can navigate only within a narrow channel or fairway. Large vessels may appear to move slowly due to their large size but actually transit at speeds in excess of 12 knots, requiring a great distance in which to maneuver or stop. A large vessel's superstructure may block the wind with the result that sallboats and sallboards may unexpectedly find themselves unable to maneuver. Bow and stern waves can be hazardous to small vessels. Large vessels may not be able to see small craft close to their bows.

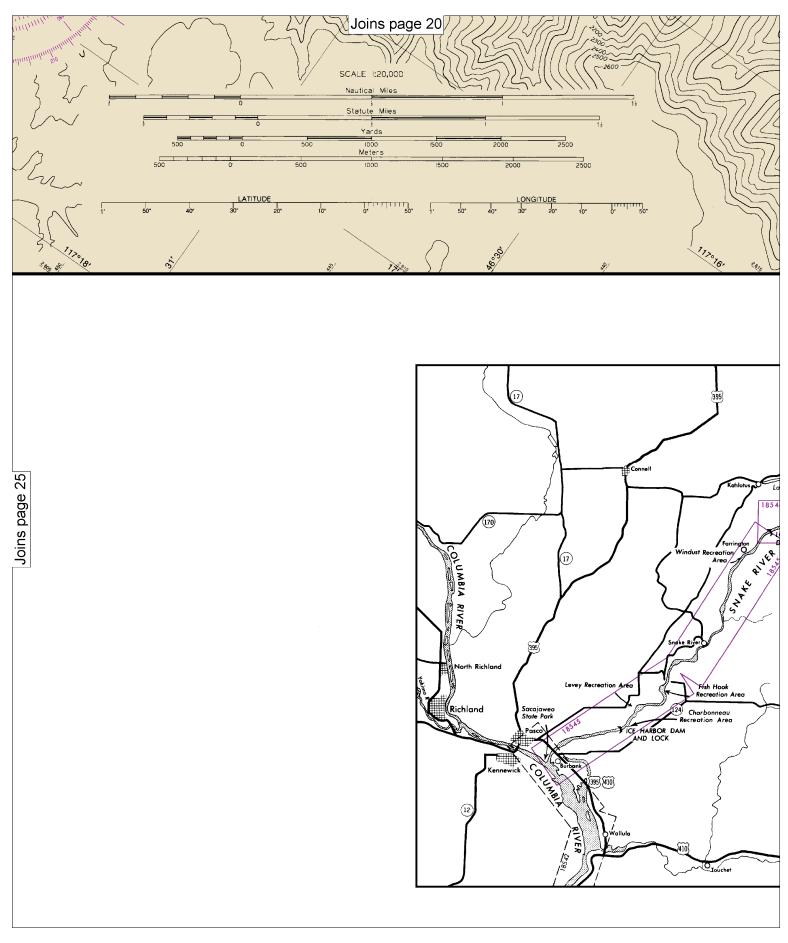
#### RULES OF THE ROAD (ABRIDGED)

Motorless craft have the right-of-way in almost all cases. Sailing vessels and motorboats less than sixty-live feet in length, shall not hamper, in a narrow channel, the safe pasage of a vessel which can novigate only inside that channel.

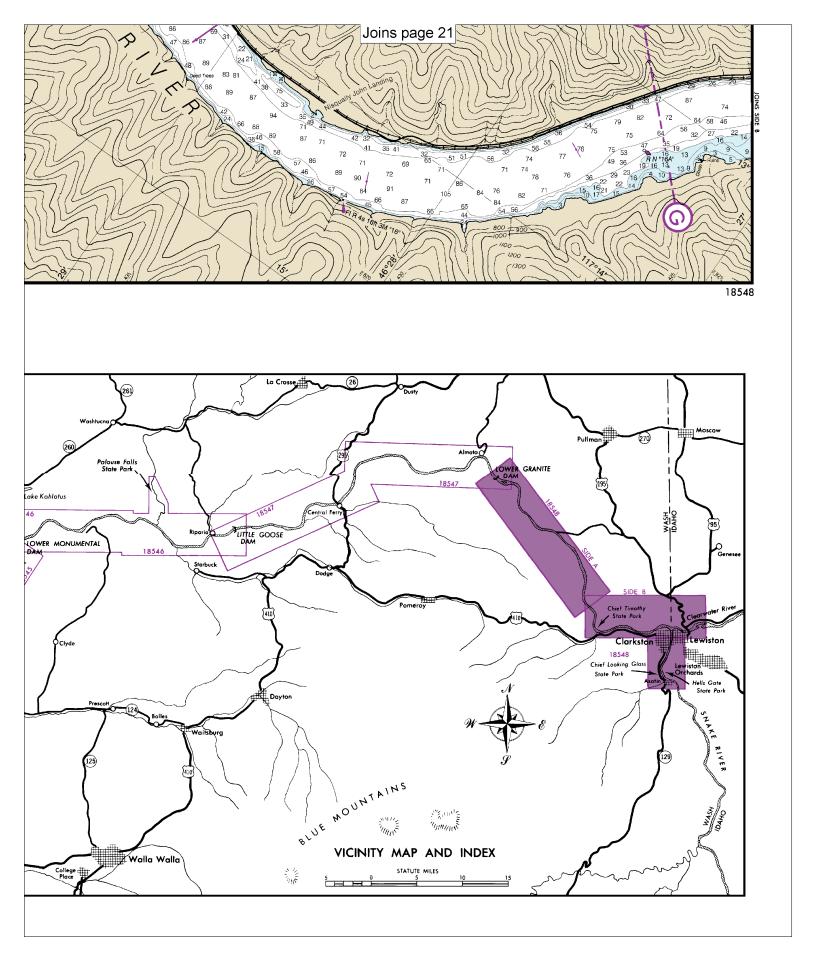
A motorboat being overtaken has the right-of-A motorcoal being overtaken has the right-of-way. Motorboats approaching head to head or nearly so should pass part to port. When motorboats approach each other at right angies or obiquely, the boat on the right has the right-of-way in most cases. Motorboats must keep to the right in narrow when soft was caferal terstraphic. channels, when safe and procticable.

Mariners are urged to become familiar with the
complete text of the Rules of the Road in U.S.
Coast Guard publication "Navigation Rules".





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# VHF Marine Radio channels for use on the waterways:

**Channel 6** – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

**Channel 16** – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here. Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

**Getting and Giving Help** — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

## **Distress Call Procedures**

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of

Emergency; Number of People on Board.

- · Release transmit button.
- Wait for 10 seconds If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

http://www.nws.noaa.gov/nwr/

# **Quick References**

Nautical chart related products and information — http://www.nauticalcharts.noaa.gov

Interactive chart catalog — http://www.charts.noaa.gov/InteractiveCatalog/nrnc.shtml

Report a chart discrepancy — http://ocsdata.ncd.noaa.gov/idrs/discrepancy.aspx

Chart and chart related inquiries and comments — http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs

Chart updates (LNM and NM corrections) — http://www.nauticalcharts.noaa.gov/mcd/updates/LNM\_NM.html

Coast Pilot online — http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm

Tides and Currents — http://tidesandcurrents.noaa.gov

Marine Forecasts — http://www.nws.noaa.gov/om/marine/home.htm

National Data Buoy Center — http://www.ndbc.noaa.gov/

NowCoast web portal for coastal conditions — http://www.nowcoast.noaa.gov/

National Weather Service — http://www.weather.gov/

National Hurrican Center — http://www.nhc.noaa.gov/

Pacific Tsunami Warning Center — http://ptwc.weather.gov/

Contact Us — http://www.nauticalcharts.noaa.gov/staff/contact.htm



For the latest news from Coast Survey, follow @NOAAcharts



This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.